Sponsored by the Bonneville Power Administration, Transmission Business Line and the Washington PUD Association • Supporting Sponsors: Alcoa Fujikura Ltd. and Lucent Technologies

PRELIMINARY AGENDA

WHO SHOULD ATTEND

Those who want to bring the information superhighway to their rural or under-served communities: Mayors and city managers of rural communities in the Northwest. Those who want to deliver these services: fiber optic manufacturers, telecommunication providers. Those who want to show communities how to use fiber optics and e-commerce to their advantage: Economic development associations, those with success stories.

WHY YOU SHOULD ATTEND

This symposium offers a forum for the business and the technology of fiber optics. At the conference, attendees can find:

- How to surmount economic problems in acquiring a fiber optics system.
- How to face new expectations and needs from residents and businesses once the system is in place.
- The technical dimensions of fiber optic system including installation and maintenance for both overhead and underground systems.
- Vendors and sources for fiber optics and telecommunications devices. New markets and business opportunities in telecommunications.

SCHEDULE

Three days of presentations. Two continental breakfasts, one lunch and one dinner are part of the registration fee. The first day begins with registration and a reception at 5 p.m. The second day begins at 9 a.m. and concludes at 5 p.m. with a no-host bar. A dinner banquet begins at 6 p.m. and ends at 7:30 p.m. The third day begins at 8:30 a.m. and adjourns at 12:30 p.m.

HIGHLIGHTS

Concurrent tracks will discuss “The business of fiber optics” and “The technology of fiber optics.” Keynote, lunch and dinner speeches punctuate the panels with talks on an overview of fiber optics systems, the inner life of a fiber optic cable, fiber optics as an economic development technique and “Jumping into the public/private telecommunications fight.” Invited speakers: Montana Senator Conrad Burns, Washington Senator Patty Murray, Montana Public Utility Commissioner Bob Rowe, Glasgow, Ky., Energy Plant Board General Manager William Ray, Washington state telecommunications committee chair Lisa Brown Washington, Washington PUD Association’s Steve Johnson, BPA Deputy Administrator Jack Robertson. Other speakers include telecommunications managers from Oregon, Washington, Idaho and Montana, service providers from Corning, Alcoa, Lucent and Nortel and local and state representatives.

REGISTRATION FEE

$200 - includes proceedings, continental breakfasts, lunch and dinner. Non-profit or government organizations, or those signing up by **Sept. 1** get a discount of $25. To register, fill out the form below or visit our website at http://www.bpa.gov/corporate/kc/fiber/conference.htm

TO REGISTER, FILL OUT THE FORM AND SEND TO:

Bonneville Power Administration
P.O. Box 491, Vancouver, WA 98666-0491
Fax: (360) 418-8433
Attention: Melanie Jackson, T-DITT2

FOR HOTEL RESERVATIONS

DoubleTree Hotel
322 North Spokane Falls Ct. ,
Spokane, WA 99201
509-744-2310
Special conference rate: $61/$76

Cavanaugh’s Inn at the Park
W. 303 North River Drive,
Spokane, WA 99201
509-326-8000
Special Conference Rate: $83/$93

ABOUT SOME OF THE SPEAKERS AND THEIR PRESENTATIONS

Amery Brooks, aerial cables applications engineer, Alcoa Fujikura, Ltd.

An expert on aerial fiber optic cables, Brooks has been with AFL three years. He has experience in manufacturing and applications engineering. Brooks has a bachelor's from Clemson University.

Fiber optic cable solutions. In today's need for Internet access, high bandwidth entertainment, and multimedia telecommunication, the demand for fiber optic systems is multiplying. More and more utilities, municipalities, and co-ops are installing fiber optic systems to accommodate the local demand. In order to install fiber optic systems economically, many mediums of installation are being explored. Brooks will explore those mediums and discuss pros and cons to all.

Ed Cook, market development specialist, Corning Inc.

Working through Corning's telecommunications products division, Cook has worked with municipal utilities, independent service providers and competitive local exchange carriers since May 1999. He worked in the manufacturing strategy department at Corning for two years before moving to marketing. Prior to working for Corning, Ed served as a U.S. Army officer for four years overseas. He is a 1993 graduate of the United States Military Academy at West Point, with a bachelor's in general engineering.

Utility Market Dynamics and Fiber Technology. As bandwidth demand grows exponentially into the 21st century, fiber technology has changed to adapt to new technologies such as DWDM. Being better able to handle fiber means improving the mechanical properties of optical fiber. Cook will discuss utility market drivers as well as recent advances in fiber technology.

Paul Daniels, national accounts manager-fibercable markets, Preformed Line Products

Daniels is responsible for technical and business relations between PLPand all of the domestic and multinational fiber optic cable companies headquartered in the U.S. He has developed and managed PLPproducts sold to the power utility market. For the last 10 years, he concentrated on hardware for aerial fiber optic cables. A22-year employee of PLP, Daniels has held several different assignments and positions, including product specialist, sales engineer, patent, trademark and project administrator, new product development manager, distribution product manager, transmission and distribution group product manager. Daniels also has worked in the line construction department at the Ohio Edison Company. He has an associates'in computer science and a bachelor's in business administration from the University of Akron.

The inner life of a fiber optics cable. Daniels will explore the unique types of hardware that have been developed for use with four major types of fiber optic cables. These fiber optic cables include underground (buried/duct), lashed dielectric (lashed phase, messenger/figure 8 and overhead shield wire), ADSS (all dielectric self-supporting) and OPGW(optical ground wire). Types of hardware to be discussed include ducts, splice closures, dead ends, supports, suspensions, pole and tower attachments, motion control dampers, electrical field suppression devices and other fittings. He also will review testing of aerial hardware and cable systems.

Terry Edvalson, director, regional services institute, Eastern Oregon University

Edvalson organized and serves as spokesperson for the Rural Oregon Telecommunications Consortium. The consortium, a loose alliance of rural community elected leaders, educators, health care providers, business owners and managers, librarians and civic activists, has a mission of improving access to the advanced telecommunications services required to be economically competitive and for maintaining a high quality of life in the information age. Edvalson served on the Oregon Energy Facility Siting Council (1988-99), was an organizing board member of the Oregon Climate Trust, is a board member of the Affiliated Tribes of Northwest Indians Economic Development Corporation, and has served on numerous boards and commissions. He has been with EOU for seven years. He also spent 17 years an education administrator on Guam and in the Trust Territory of the Pacific Islands.

The regulatory landscape. Edvalson will briefly describe a legislative package, the process used to explain to legislators why the status quo is no longer acceptable in terms of rural Oregonians not having equity in access to broadband telecommunications infrastructure, what Oregon Senate Bill 622 promises, and actions that must be taken to ensure the digital divide is not allowed to grow. The Connecting Oregon Communities Coalition brought three bills to the Oregon Legislature in January 1999 that aimed to discover what it would take to make telecommunications services providers invest capital to improve infrastructure and to serve rural communities where a business case for the investment is not readily apparent. SB 622, which passed, changes the form of regulation for electing telecommunications utilities from rate of return to price caps in exchange for investments in infrastructure and improving services. SB 143 established a tax credit for investment in advanced telecommunications infrastructure improvements equal to 75 percent of the cost of the facilities over five tax years. SB 142 died for want of a champion.

Brian Haux, regional account manager, Lucent Technologies

Haux'territory covers the six Pacific States. He has responsibility for all utility companies, state and local governments as well as public education entities. He has held various operations, engineering and sales positions within Lucent as well as with AT&T. His technical background covers SONET, transmission equipment, local switching, and fiber optic cable and data products.

The increasing demand for bandwidth — can you keep up? Haux will cover the evolution of digital transmission mediums. He will show the technology evolution from copper pairs through today's high-speed dense wave division multiplexing (DWDM) technologies and XDSLloop technologies. He will share what is driving bandwidth demand and what you can do to satisfy that demand for your needs and the needs of your customers and partners. You will see the options available to meet the demand and look at the not-to-distant future wireless technology breakthroughs.

Larry Johnson, founderand president, The Light Brigade

The Light Brigade, provides instructor led and video/CD-ROM based training on how to design, install, maintain and test fiber optic networks. Johnson has been involved in all aspects of the fiber optics industry since 1977. He has developed fiber optic standards including network and physical plant, test, measurement and installation standards. He has taken part in various designs, installations, tests and measurements of fiber optic projects. As a result, he has been invited to speak to the International Optical Fiber Conference, Supercomm, the OSPShowcase, Fiber in the Loop, ISAand many other professional symposia. He is a member of the Optical Society of America, the International Society of Optical Engineering, the Society of Cable Television Engineers and the Building Industry Consulting Service International.

Jim Lowery, manager, Washington state Rural Development Council

Lowery served as the executive director of Pacific County Economic Development Council prior to taking his present job with the Washington State Rural Development Council. He has worked and lived in rural communities all of his life. He has served as mayor of Shelton, Wash., a business agent for the International Woodworkers of America, loan officer for a finance company, millworker, insurance agent and job developer for a dislocated worker program in Shelton. He has owned and operated two businesses and managed a congressional office in Olympia

How can we work together? Lowery will represent a rural perspective. He will approach the subject from the community level first and then he will discuss the importance of partnerships, both public and private as well as the importance of regional and statewide opportunities for collaboration.

ABOUT SOME OF THE SPEAKERS AND THEIR PRESENTATIONS

Chuck Meyer, vice-president, Bonneville PowerAdministration

In December 1996, Chuck Meyer was appointed vice-president of Transmission Marketing and Sales. He has executive responsibility for bringing in revenue for BPA's transmission business. He presides over a staff of employees who develop products and services - including fiber optics - develop rates, set policies on open access and who schedule, contract and bill for transmission services. Earlier in 1996 Meyer served as manager for Business Strategy and Assessment in Transmission. He set strategic goals and yearly targets for the business, gathered market intelligence and measured performance in meeting targets. He also has managed BPA's industrial customers segment, a $500 million per year business (1994-6). He was director for resource planning and developed forecasts for electricity demand and supplies (1989-94). Meyer received a cum laude bachelor's in business administration in 1973 and a master's in economics in 1974, both from Kent State University in Kent, Ohio.

Ed Parker, president, Parker Telecommunications

Parker chairs the CoastNet committee of the Economic Development Alliance of Lincoln County (Oregon). Before becoming a consultant, he had be president of the data networks division of a large telephone company. His unit included the former Equatorial Communications Company. Parker co-founded Equatorial in 1979, grew it from an entrepreneurial idea to a company making $50 million a year in revenues. He was its board chairman, president and chief executive officer before its merger with Contel in 1987. Equatorial was the first company in the world to use very small satellite earth stations for data communications. He also has been professor of communication at Stanford University (1962-79), taught at the University of Illinois (1960-2) and has co-authored or co-edited five books and more than 75 professional articles. Oregon Governor John Kitzhaber named Parker local economic development leader of the year in 1995.

Fiber is not enough: Telecommunications for economic development. Fiber optic communications, or at least the broadband, high-speed reliable data and multi-media communications that fiber makes possible, are essential for economic development. They are particularly necessary for rural development. Fiber can help rural communities overcome the twin rural economic barriers of distance and lack of scale economies that stand between them and success in the modern global information economy. But fiber is not enough. Laying fiber across a desert will not make it green. There are four essential elements in any successful plan to use telecommunications for economic development: Investment in the fiber and related switching infrastructure; access for communities, businesses and individuals to the networks the infrastructure makes possible; applications that communities, business and individuals can use to achieve their economic goals; training and support to help organizations and individuals learn how to use the telecommunications applications that will be the engines of economic development.

Steven L. Prickett, fiberoptic project manager, Bonneville PowerAdministration

Prickett has been a design and managing engineer for 22 years. Eighteen years have been spent at BPA working on transmission and fiber optic lines. He coordinates fiber optic cable deployment on BPA transmission lines. He is a registered professional engineer and has a bachelor's and master's from Portland State University.

Overview of fiber optics systems. Prickett will describe what drove BPA to enter the fiber optics program and what it has built to date. You will gain his experience on design considerations from ground clearance to icing effects to cable blow-out. You will learn about costs for construction, materials, unit costs per fiber and incremental cost. You will learn how to plan out schedules and how to maintain fiber. Construction methods include using helicopters, all-terrain vehicles and working around energized high-voltage lines. Pros and cons of the reliability of buried versus aerial cables will be described. You will learn how BPA worked with environmental and tribal groups and other landowners to understand their concerns.

William Ray, CEO, Glasgow Electric Plant Board

Billy Ray and his team changed the utility from a simple provider of electric power to a municipal resource of energy, telecommunications and technology. Under his direction, the Glasgow EPB constructed a broadband network throughout Glasgow that incorporates the provision of cable television, telephone and high-speed Internet access into a new "Infotricity Utility" for the benefit of the people of Glasgow. He has provided expert testimony for the Federal Communications Commission, the U.S. House of Representatives, the U.S. Senate and others on the subject of competition in telecommunications services.

Jumping into the public/private telecommunications fight. The creation of public power and use of affirmative government caused electricity to be democratized. Today, that same model can be used to offset the greed of modern telecommunications companies that refuse to build adequate systems in rural areas. The democratization of telecommunications will give our economy a boost that might eclipse the democratization of electric power. There is an opportunity here for BPA to spur the development of a new, telecommunications-based economy that will sustain growth and equalize the experiences of all Americans. The recipe for this economy is written in the history of the electric power industry.

Jeff Ritter, manager, Oregon Economic and Community Development Department

Ritter has been with OECDD seven year. He works on business development and business climate projects. Most recently he helped introduce the "fiber brokering" technique to rural Oregon communities, leading to implementation of rural fiber connectivity valued at over $14 million. Before that, he coordinated an effort to profile sixty of Oregon's most innovative info-businesses (1998). He served as staff to the Oregon Governor on telecommunications issues (1996-7). He helped Klamath Falls, Ore., to recruit Sykes Enterprises, the first large call center east of the Oregon Cascades (1995). He guided the Klamath Falls through a demand aggregation process that led to a $6 million investment in fiber optics in the region (1994). He developed and implemented a response system that led to the recruitment of Sony Disc Manufacturing in Springfield, Ore. (1993).

Fiber optics as an economic development technique from the states point of view. Communities with a desire to participate in the information economy must involve their entire community in projects spanning workforce, business climate and telecommunications infrastructure if they are to be successful. In terms of infrastructure, the availability of fiber optic-based communications is now an imperative for economic vitality. Ritter will provide an overview and evaluation of methods Oregon communities have used to deploy fiber optics. He then will focus on the techniques communities can use to turn the fiber into an engine for economic prosperity.

Jack Robertson, deputy administrator, Bonneville PowerAdministration

Robertson is second in line of authority at BPA. He began his career working for the House of Representatives and then for Sen. Mark Hatfield of Oregon as senior policy advisor and director of communications (1973-82). He came to BPA in 1983 as head of external affairs and moved to the deputy position in 1987. He serves on the Presidential Commission on Western Water Policy and the board for the North American Electric Reliability Council. He has degrees from Stanford University and the Stanford executive program at the graduate school of business.

ABOUT SOME OF THE SPEAKERS AND THEIR PRESENTATIONS

Bob Rowe, commissioner,
Montana Public Utility Commission

Rowe became commissioner in 1993. He currently is chairman of the telecommunications committee for the National Association of Regulatory Utility Commissioners (NARUC) and first vice president for NARUC. He is a member of the National Regulatory Research Institute board of directors, the Michigan State University Institute of Public Utilities advisory committee, and the New Mexico State University Center for Public Utilities advisory council. He is past chair, regional oversight committee for US West. He has a bachelor 's from Lewis and Clark College and a law degree from the University of Oregon. He attended the Harvard Kennedy School executive program and completed graduate work in public administration and public policy.

State commissions implement the Telecommunications Act. The 1996 Telecommunications Act instructs both the FCC and state public utility commissions to promote competition and deployment of advanced technology while also preserving universal service and protecting consumers. Rowe will describe the work of state commissions and of the NARUC telecommunications committee implementing the Telecommunications Act. He will focus especially on strategies to promote deployment of and access to advanced technologies as part of the larger mission.

Barry Stringfellow, consultant and formerdirector, Pacific Telecommunications Ltd., Wellington, New Zealand

Before becoming a consultant, Stringfellow held a number of senior positions in the New Zealand Post Office and its successor Telecom New Zealand. As a consultant he has an international practice concerned with business process recovery and network rehabilitation. He has recently been working with telecom companies in East Africa. He has a bachelor's in engineering from the University of Auckland and a bachelor's in operations research from the Victoria University of Wellington. He undertook postgraduate training with Associated Electrical Industries and the General Electric Company in the U.K.

From country set to IMT 2000: Wireless in the last mile. Fiber has eliminated distance as the determinant of value in communications and replaced it with accessibility to information. Information technology has expanded our expectation of the scope of communication services. Wireless has personalized our access. As the range of services delivered by the network expands, its capability to displace other costs in our economies is enhanced. Will this increased service capability accelerate the expansion of the communication network into rural areas? Stringfellow reviews how wireless technology developed in the urban environment and asks how this technology can be applied to the 'last mile'in a rural location.

Cindy Weeldreyer, commissioner,
Lane County (Oregon) Board of Commissioners.

Weeldreyer was elected to the board of commissioners in 1995. She chairs the Lane County technology management team and the communications, public outreach and education steering committee of the Association of Oregon Counties. She is the public sector co-chair of The SmartOregon Project, and represents county interests on the State Information Resources Management Council. She's also a member of the National Association of Counties' Transportation and Telecommunication steering committee and the Rural Action Caucus.

Fiber brokering in strategic telecommunications corridors - a new aggregation of demand model. Since 1997, Weeldreyer has championed telecommunication infrastructure development initiatives to provide access to rural and underserved areas. Recently, in cooperation with the Oregon Economic and Community Development Department, the SmartOregon Project and officials in 20 cities and four counties, she began creating two regional fiber optic consortiums. These aimed to gain access to dedicated dark fiber for cities and counties along new fiber routes now being built in Western Oregon. Her presentation outlines the steps to creating regional consortia and the lessons learned along the way.

Washington SenatorLisa Brown, chair, Energy, Technology and Telecommunications Committee

Brown represents the 3rd legislative district, Spokane. She is serving her third year as a senator, having served four years in the House of Representatives. Brown is on three standing committees: Energy, Technology, and Telecommunications, chair; Ways and Means, vice-chair; and Education. Washington Governor Gary Locke appointed Brown to the commission on early learning. She is a member of the information services board. She is an associate professor of economics at Eastern Washington University and holds a bachelor's from the University of Illinois and a master's and doctorate in economics from the University of Colorado.

Matt Lampe, director of strategic planning forinformation technology, Seattle

For the past four years, Lampe has been Seattle's lead staff person on the development of telecommunications policy. He has negotiated a variety of legislation and agreements to help implement those policies. He was lead negotiator of the cable television agreement with TCI, Inc., a first to provide for the development of commercial Internet access service through the cable system. As lead city spokesman in state legislature on telecommunications issues, he worked to pass regulatory reform legislation on pole attachment, wireless siting, Internet taxation and, most recently, a near miss on right-of-way legislation. He led negotiations to establish shared fiber optic development by multiple governments within the Seattle area and led negotiation for a competitive overbuild cable television franchise to stimulate local competition. Lampe has a bachelor's and master's in public administration from the University of Michigan.

The regulatory landscape. Lampe will look at some of the landmines and other features of the regulatory environment, with a focus on Washington state. The presentation will provide some of the historic antecedents to the existing regulatory environment, look at the interaction of technological innovation and regulation and discuss some of the recent and pending changes in the regulatory environment. He will show you how to assess the business climate and make a good risk assessment in a market decision.